

152. The system of claim 138, wherein said I/O resource manager is capable of monitoring said at least one of said system I/O performance characteristics at the logical volume level.

153. The system of claim 152, wherein said I/O resource monitor is capable of monitoring said 5 system I/O performance characteristics of said at least one storage device or at least one partitioned group of storage devices at the logical volume level.

154. The system of claim 152, wherein said I/O resource monitor is capable of monitoring at 10 least one of maximal aggregate consumption rate for said at least one storage device or partitioned group of storage devices, maximal aggregate number of viewers for said at least one storage device or partitioned group of storage devices, or a combination thereof.

155. The system of claim 152, wherein said storage system includes at least two storage 5 devices or at least two partitioned groups of storage devices.

156. The system of claim 155, wherein said I/O resource monitor is capable of monitoring a 20 workload distribution across said at least two storage devices or at least two partitioned groups of storage devices.

157. An information delivery storage system, said storage system comprising:

25 a storage management processing engine that includes an I/O resource manager, a logical volume manager, and a monitoring agent; said I/O resource manager, said logical volume manager, and said monitoring agent being in communication; and

30 at least one storage device or group of storage devices coupled to said storage management processing engine;

wherein said information delivery storage system comprises part of an information management system configured to be coupled to a network.

5

158. The system of claim 157, wherein said storage management processing engine comprises at least one of said processing modules that are capable of performing at least one of I/O resource monitoring, I/O resource modeling, I/O resource management, or a combination thereof.

10

159. The system of claim 158, wherein said I/O resource manager comprises a storage system workload monitor.

160. The system of claim 159, wherein said monitoring agent is capable of monitoring number of outstanding I/O requests in at least one storage device or group of storage devices; and wherein said storage system workload monitor is capable of monitoring a number of viewers being served by at least one logical volume contained at least in part on said at least one storage device or partitioned group of storage devices, and monitoring the aggregated data consumption rates for said number of viewers being served by at least one logical volume contained at least in part on said at least one storage device or partitioned group of storage devices.

25 161. The system of claim 160, wherein said information management system comprises a content delivery system; wherein delivered information comprises continuous media data; and wherein said storage system includes two or more storage devices or two or more partitioned groups of storage devices for delivery of said continuous media data.

30

162. The system of claim 161, wherein said monitoring agent is capable of monitoring a number of outstanding I/O requests for at least a portion of each of said at least two storage devices or at least two partitioned groups of storage devices; and wherein said storage system workload monitor is capable of:

5

monitoring a number of viewers being served by at least a portion of each of said at least two storage devices or at least two partitioned groups of storage devices, and monitoring the aggregated data consumption rates for said number of viewers being served by said at least a portion of each of said at least two storage devices or at least two partitioned groups of storage devices;

10

determining an estimated total number of viewers for each of said at least two storage devices based at least in part on said number of viewers being served by at least a portion of each of said at least two storage devices or at least two partitioned groups of storage devices, and said monitored number of outstanding I/O requests for at least a portion of each of said at least two storage devices or at least two partitioned groups of storage devices; and

15  
16  
17  
18  
19  
20

determining an estimated aggregated data consumption rate for each of said at least two storage devices or at least two partitioned groups of storage devices based at least in part on said estimated aggregated data consumption rate for said number of viewers being served by said at least a portion of each of said at least two storage devices or at least two partitioned groups of storage devices, and said monitored number of outstanding I/O requests for at least a portion of each of said at least two storage devices or at least two partitioned groups of storage devices.

25

163. The system of claim 162, wherein said workload monitor is further capable of:

30 determining an estimated workload distribution across said at least two storage devices or at least two partitioned groups of storage devices based at least in part on said